

Diabetes and landmine-related amputations: a call to arms to save limbs

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The effects of landmine-related morbidity have long been the subject of intense attention by the media, governments and non-governmental organizations alike (1–3). While much remains to be done in this area, it can be argued that major advances have been made (4–6). At the other end of the spectrum, the epidemic of diabetes-related limb amputations continues its inexorable rise; despite a surprisingly high 5-year mortality associated with this preventable scourge, the lay public and press seem largely unaware and policy-makers have failed to appropriately respond (7).

In many ways, diabetes-related amputations are strikingly similar to those associated with landmines. This intriguing comparison emphasizes the silent nature of the 'warfare' and the sinister consequences on the life of patients/victims. From a public health standpoint, diabetes-related amputations are now more common than those resulting from exploding hidden landmines, leading to 70% of the lower extremity amputations around the world (8). Certainly, huge progress has been made in the areas of offloading, aggressive wound healing protocols and prevention (9,10). But how does this progress compare to the magnitude of the problem, especially when considering the developing and developed nations on the same scale?(11) Undoubtedly, we are currently losing this silent war and much needs to be done at various levels (community, providers, media, government and non-government organizations) if we want to win.

Diabetes is a worldwide-epidemic; in 2006, there were more than 230 million individuals with diabetes; in 20 years, this number is expected to reach 350 million. This high incidence of diabetes, coupled with the associated 43–55% 5-year mortality rates after new-

onset diabetic limb ulceration, which increase up to 74% for patients with lower-extremity amputation, will mount significant pressure on global healthcare infrastructure. It is striking to note that these mortality rates are higher than those for several types of cancer including prostate, breast, colon, and Hodgkin's disease (7,8,12). While it is inexpensive to produce a landmine(3), the consequences invariably lead to lower extremity amputations, with subsequent loss of livelihood and poor quality of life. 'A single landmine might cost \$1, but once in the ground locating it and making it safe can cost up to \$1000.' (13,14)

We face a daunting uphill task in combating an even more treacherous and formidable foe. Diabetes is often silent, lurking beneath the clinical surface; a foot ulceration or infection is a common early manifestation during the course of the disease. It is usually underlying neuropathy, which leads to foot ulceration. A Semmes-Weinstein filament costs pennies to produce and is often provided free to diabetes care clinics around the world; its more widespread use to detect diabetic neuropathy in its early stages would be an enormously cost-effective equivalent of expensive detectors to search for unexploded landmines.

Extensive new initiatives by the World Diabetes Federation (WDF) and World Health Organization (WHO), especially in developing countries, to improve the treatment of diabetes and implement targeted and proven prevention strategies have certainly helped to combat this epidemic. Organized prevention efforts coupled with timely and aggressive interventions when needed can improve patient outcomes and reduce amputation rates. (15)

Landmine-related amputations are a global problem affecting 84 countries and eight territories

worldwide. It is estimated that approximately 800 people die each month, while 1200 sustain non-fatal injuries from landmine related injuries (2,3).

Diabetes around the globe results in one major limb amputation every 30 seconds, over 2500 limbs lost per day! In India alone, 40 000 amputations are performed annually (16). These staggering figures underline the enormous scale of the problem. This appears to be more than 50 times more frequent than reported landmine casualties. Therefore, a joint perspective that aims to develop awareness in both developing and developed nations about the truth that surrounds us in this modern day silent war against diabetes can help shape our strategies and support further research in this area. As with landmines, the effects of diabetes are irreversible. They both lurk silently before suddenly exploding, destroying the limbs and lives of their innocent victims. The authors wish to sound the alarm. To save limbs, we call to arms the public, the media, the health care community, and policymakers throughout the world to join together in battle.

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